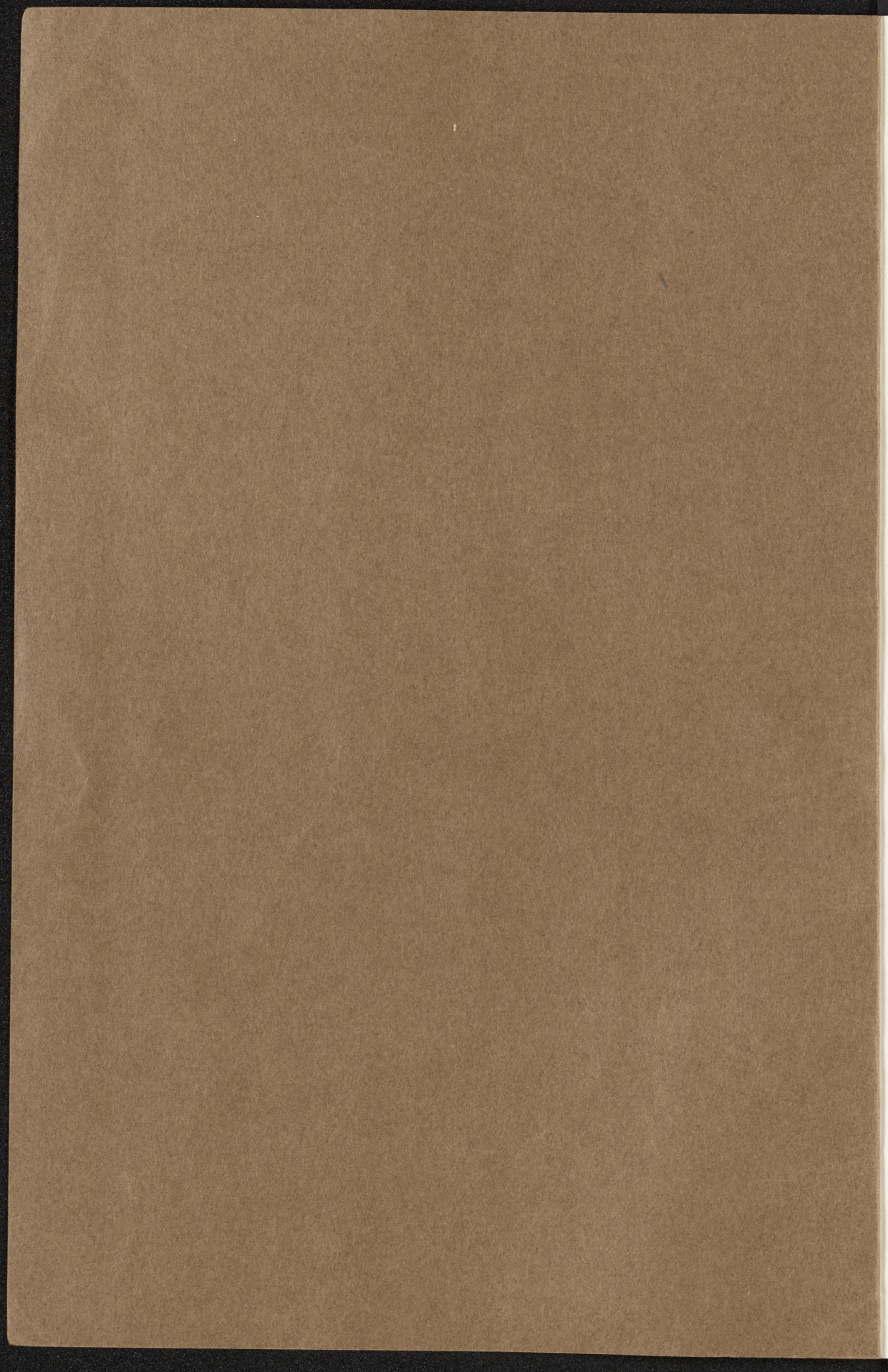
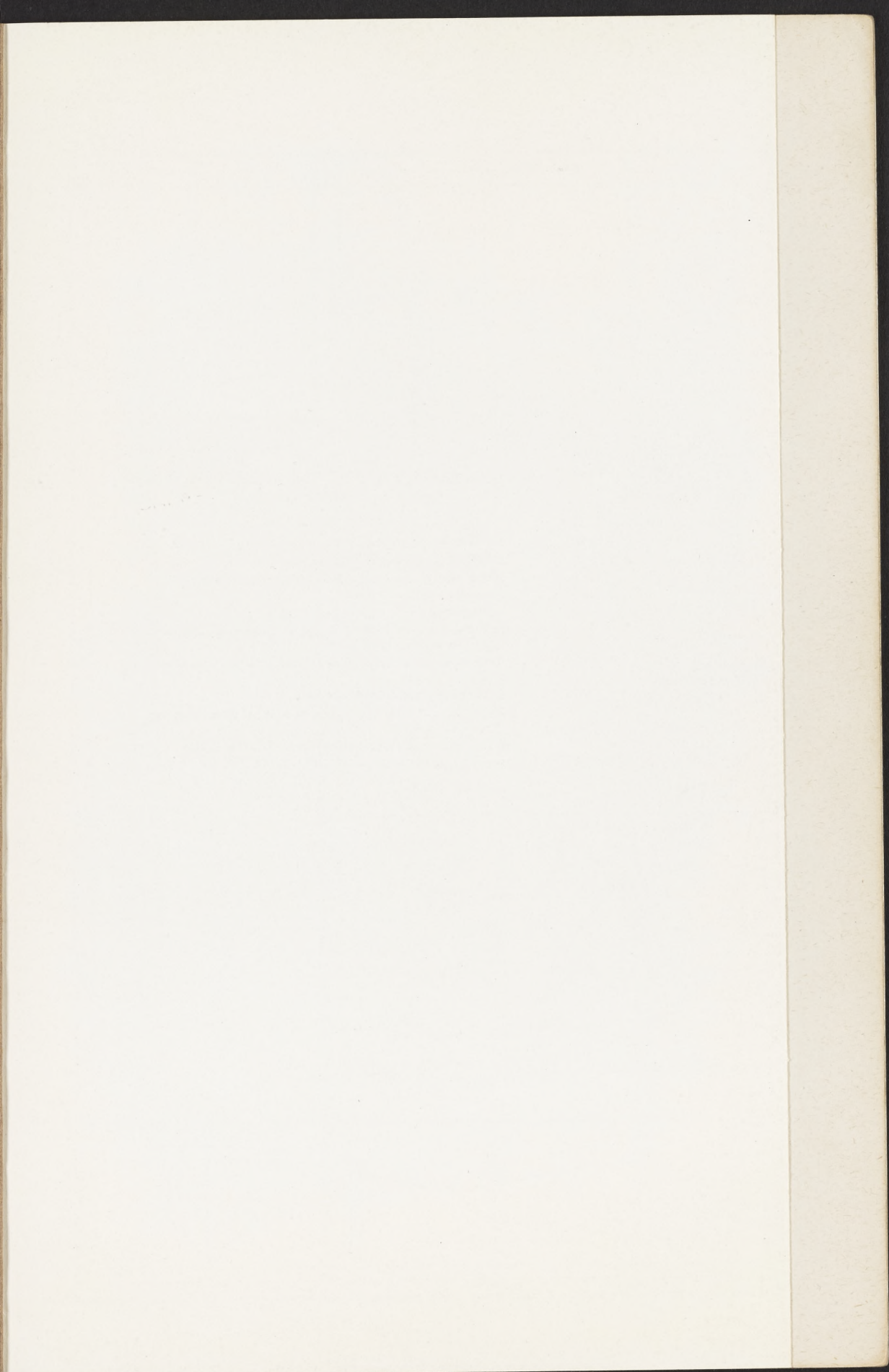


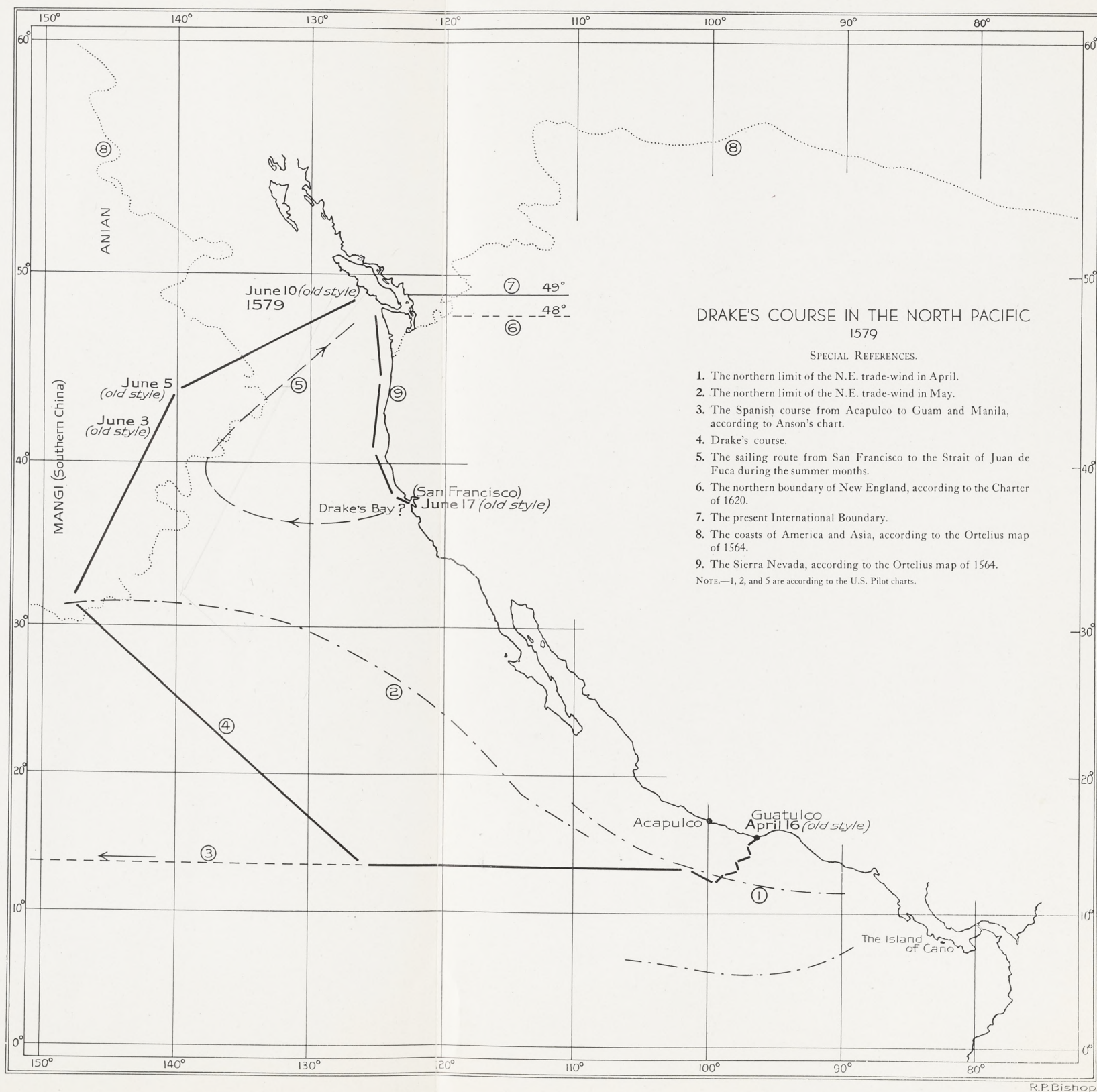
DRAKE'S COURSE IN THE NORTH PACIFIC

BY
R. P. BISHOP

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DRAKE'S COURSE IN THE NORTH PACIFIC.

For many a year Sir Francis Drake's great voyage of circumnavigation in 1577-80 was looked upon as having been primarily a buccaneering expedition. It was taken for granted that he had set out with no greater purpose than to despoil the Spaniards in the grand manner. Of recent years, however, H. R. Wagner and other scholars have done a service of inestimable value both to Drake's reputation and to history by showing that the voyage was, in actual fact, a serious enterprise undertaken in the interests of trade and exploration, and possibly with a view to colonization as well.

A moment's digression into the field of heraldry may not come amiss. The first ship to sail around the world was Magellan's *Victoria*; the second, Drake's *Golden Hinde*. Magellan, who sought to reach the Spice Islands by sailing south and west, met his death in the Philippines. The expedition reached the Moluccas, and del Cano, who brought the *Victoria* back to Spain, was granted as crest a terrestrial globe and the motto *Primus circumdedisti me*. Drake was granted a globe and the words *Auxilio Divino*.

Even more significant were the augmentations to the respective coats of arms. To del Cano twelve cloves, three nutmegs, and two bars of cinnamon; supporters, the kings of Tidore and Gilolo. These, according to Kirkpatrick, indicated that the Emperor and the Council of the Indies believed the objects of the voyage to have been accomplished. . . .¹

Drake also reached the Moluccas, and his trading arrangement with the Sultan of Ternate has been considered by some as the most important result of the voyage. But Drake's arms do not display a single potentate or peppercorn:—

(1) F. A. Kirkpatrick, *The Spanish Conquistadores*, London, 1934, p. 131. An illustration appears in *Early Spanish Voyages to the Strait of Magellan*, Hakluyt Society, London, 1911, p. 12.

British Columbia Historical Quarterly, Vol. III., No. 3.



Sable, a fess wavy between two stars argent.²

The *Golden Hinde* was the first English ship to enter the Pacific Ocean. The waves, then, explain the fesse. The star below—the Cape Horn passage, and, perhaps, the farthest south attained by man. The star above—*Nova Albion vpon the back-side of Canada, further then euer any Christian hitherto hath pierced*. The quotation is from the title page of Hakluyt's *Principall Navigations, Voiages and Discoveries*, 1589, apparently the first appearance of the name in type, though *Nova Albion* had appeared on a map in 1587, in Hakluyt's Paris edition of Peter Martyr.

The whole question of the genesis of Drake's voyage is too complex to be considered here, but it is now recognized that he was seeking to carry out earlier proposals for trade and colonization. In his recent biography of Sir Richard Grenville, A. L. Rowse refers to the intense interest taken in geographical matters in the years immediately preceding Drake's departure from England, and the cardinal point about which it is centred:—

The real significance of this interest in geography was the passionate excitement aroused in the question of a North-East or a North-West Passage to Cathay. It was a matter of the greatest importance for the future of English expansion. The riches of the trade with the Far East had been revealed by the Portuguese voyages via the Cape of Good Hope; but southward expansion up to the time of Hawkins' voyages was blocked by the Portuguese and Spanish monopoly, and it was now being made abundantly evident that any attempts to penetrate their privileged sphere would mean fighting. . . . And so the question of a northern Passage to the Far East was a vital one; if there were one at all, and most geographical opinion agreed that there was, it would fall naturally into the sphere of English control, and being nearer than the Cape of Good Hope, give this country the larger control of the trade in Far Eastern commodities at cheaper rates.³

In a word, a clash with Spain might be avoided if a practicable northern passage existed; for discoveries by the North-

(2) Sir Julian Corbett, *Drake and the Tudor Navy*, London, 1899, p. 411.

(3) A. L. Rowse, *Sir Richard Grenville*, London, 1937, p. 84.

east, North, or North-west, it appears, were not regarded as running counter to the famous Bulls of Alexander VI., which reserved to Spain the lands lying west of a certain meridian and, apparently, south of the Azores.⁴ Indeed, the rights of the English Merchant Adventurers to explore in those quarters had been renewed in the reign of Philip and Mary, when Philip of Spain was practically King of England.

The Governor of this association was Sebastian, the son and partner of John Cabot, to whom Henry VII. had granted rights to explore by the East, West, and North. Sebastian Cabot was interested in the North-west Passage, but the Merchants confined their energies to the North-east, where they entered the White Sea and opened up a profitable trade with Russia. As a consequence the association was commonly known as the Muscovy Company.

Interest in the North-west Passage was brought to a head by a map published in 1564 by the rising young geographer, Abraham Ortelius. This showed Labrador as an island, and the whole of the northern shore of America well to the south of the sixtieth parallel. Northern China was represented as being only a few hundred miles to the west of the Sierra Nevada, and between them was the strait or narrow sea of Anian.⁵ The Moluccas, according to the map, were not far away. The year after the map was printed Sir Humphrey Gilbert applied for permission to make the Passage, but his proposals were blocked by the Muscovy Company. Later their monopoly was challenged successfully by Lok and Frobisher, and, at a time not yet precisely determined, Gilbert's cousin, Richard Grenville, proposed to discover the Passage from the west by searching the Strait of Anian. Gilbert himself suggested "inhabiting for our staple some convenient place of America, about Sierra Nevada," and his discourse on the passage to Cathay, the Moluccas, and other parts of the East was published the year before Drake left

(4) James A. Williamson, *The Age of Drake*, London, 1938, p. 27.

(5) The eastern part of North America appears in the *Geographical Journal*, LXXII. (1928), No. 3, opp. p. 304. See also p. 237. The western part appears in *Sir Francis Drake's Voyage around the World*, H. R. Wagner, 1926, p. 39.

England.⁶ It will be seen that Drake combined these projects, searched for the Strait, took possession, and traded in the Moluccas.

Grenville had developed an interest in lands "beyond the equinoctial,"⁷ fatally reserved for the honour of Her Majesty and, incidentally, free from interference by the Muscovy Company. His interest in Cathay appears in a draft Charter.⁸ He proposed to plant a colony near the River Plate, and to pass through the Strait of Magellan.⁹ In other words he proposed a South-west Passage to Cathay, with staples near Buenos Aires and on the Pacific coast. He made extensive preparations, and apparently secured sanction for the voyage, but this was cancelled for fear of trouble with Spain. He finally proposed to spend a few weeks near the Strait of Magellan, and then proceed with all speed to the Strait of Anian; here he would spend several months in making a reconnaissance, trade with Cathay, and return by the North-west Passage. His *Discourse*¹⁰ on the subject resembles, in certain respects, the draft plan of Drake's voyage recently discovered by Professor E. G. R. Taylor.

In the proposals of Gilbert and Grenville, and in Drake's reconnaissance and act of possession, we have the Elizabethan prelude to the history of the North Pacific coast, and to a good deal more besides. It has, however, been suggested that Drake was not searching for the Strait, and that he did not reach the neighbourhood of 48 degrees. These are the points which require investigation in the first instance. But before going into details it is better to refer briefly to the general problem.

(6) *A Discourse of a Discoverie for a New Passage to Cataia*, 1576. Reprinted in Hakluyt's *Principall Navigations*, 1589.

(7) Lansdowne MS., 100, fol. 142-6, British Museum; given in *The Three Voyages of Martin Frobisher*, by Richard Collinson, Hakluyt Society, London, 1867, p. 4. See also Rowse, p. 90.

(8) Extracts are given by Rowse, pp. 95-97.

(9) See the evidence of Oxenham and his companions in *New Light on Drake*, by Mrs. Zelia Nuttall, Hakluyt Society, 1914, pp. 7-11.

(10) *A discourse concerninge a straighte to be discovered towarde the northweste, passinge to Cathaia and the orientall Indians, with a confutation of their error that thinke the discoverye thereof to be moste conveniently attempted to the northe of Baccalaos*. Endorsed by Burghley "Mr. Grenville's voyage." Lansdowne MS., 100, No. 4, B.M. given in *The Three Voyages of Martin Frobisher*, Hakluyt Society, 1867, p. 8.

THE PLOT OF THE VOYAGE.

It is now apparent that Drake's voyage combined several different projects; the difficulty is to distinguish them. In 1926 H. R. Wagner published practically all available information in his monumental study entitled *Sir Francis Drake's Voyage around the World*, and concluded that the voyage was intended for the Moluccas.¹¹ J. A. Williamson arrived independently at a similar conclusion:—

It is undoubted that when Drake returned a very great importance was attached to his treaty with the Sultan of Ternate in the Spice Islands. It was made the basis of subsequent voyages, and formed the title-deed of the empire the East India Company hoped to establish in the archipelago. Only when the Dutch had ousted us, and we had fallen back on continental India, did Drake's achievement begin to fade from the public mind. What has never faded is his ballast of Spanish silver, with its top-dressing of gold and precious stones. It is time to recollect now, in the name of sober history, that above even these lay samples of all the spices in the Moluccas.¹²

In 1930 Professor Taylor discovered and published the report of Captain Winter, who became separated from Drake near the Strait of Magellan and returned to England. The reprint makes it clear that the Moluccas were included in the programme, thus confirming the conclusions of Wagner and Williamson.¹³ At the same time Miss Taylor published a draft plan of Drake's voyage, which indicates that a shorter programme was intended in the first instance.¹⁴ The list of promoters shows that the project was controlled by members of the Navy Board and the inner circle of the Queen's personal advisers. Drake was to contribute £1,000. A licence had been obtained from the Grand Turk "so as to give colour to the pretence that the voyage was for Alexandria."¹⁵ Her Majesty was to be made privy to the truth of the voyage, and to supply a ship, the *Swallow*.

The draft plan provided for a five-months' reconnaissance in the Pacific, entering and returning by the Strait of Magellan.

(11) Wagner, *Sir Francis Drake's Voyage*, p. 26.

(12) J. A. Williamson, *Sir John Hawkins*, Oxford, 1927, p. 395.

(13) E. G. R. Taylor, "More Light on Drake," the *Mariner's Mirror*, XVI. (1930), pp. 134-150.

(14) Cotton MSS.; British Museum. Photographs of two pages are given in the *Geographical Journal*, LXXV. (1930), facing pp. 46-47. The edges of the paper have been burnt, and Miss Taylor gives a reconstruction of the essential part in the *Mariner's Mirror*.

(15) Quoted from Miss Taylor's article.

Drake was to sail northwards along the coast "as of the other" to 30 degrees, with a view to opening up trade in countries not under the obedience of any Christian prince.

The Spanish occupation actually extended to the neighbourhood of 40 degrees on the coast of Chile but, as Williamson points out, the extent of this occupation was not made clear in the published works of Ortelius and Mercator.¹⁶ In the Ortelius atlas of 1570 the prominence of the name Coquimbo may have conveyed the impression that the continent was not under the obedience of any Christian prince south of 30 degrees. The phrase "as of the other" suggests the Atlantic coast, where Buenos Aires had been abandoned in 1541 and the remnant of the settlers taken to Asuncion. Here, for thirty-six years, the only stable settlement in the region of the River Plate stood in the centre of the continent, nearly 1,000 miles from the sea.¹⁷

"Grenville's project was to come and found a settlement on the River Plate and then pass the Strait and establish settlements wherever a good country for such could be found." This fact is mentioned in the evidence of John Oxenham. It will be remembered that Drake and Oxenham had seen, from a tree on the Isthmus of Panama, the Atlantic on one side and the Pacific on the other. Oxenham had built a pinnacle and navigated the Pacific, had been captured by the Spaniards and taken to Lima. Here he and his companions gave evidence before the Inquisition while Drake, unknown to them, was raiding the coast. Oxenham thought that

if the Queen were to give a licence to Captain Francis Drake he would certainly come and pass through the Strait, because he is a very good mariner and pilot, and there is no better one than he in England who could accomplish this. . . . The said Captain Francis had often spoken to witness saying that if the Queen would grant him the licence he would pass through the Strait of Magellan and found settlements over here in some good country.

Questioned with how many ships it would be possible for Francis Drake to come to the Strait he answered that with the aid of his relatives and

(16) Williamson, *The Age of Drake*, p. 170. Miss Taylor subsequently published extracts from a manuscript Navigating manual which, she considers, may have belonged to Drake. It was evidently prepared in 1577, and gives sailing directions for the Strait of Magellan and the coast of Chile to the neighbourhood of 30 degrees. *Pacific Historical Review*, I. (1932), pp. 360-9.

(17) Kirkpatrick, p. 335.

companions he might be able to bring two or three vessels but that, after discovering a good country, they would be able to come with more ships. Witness said that Captain Francis discussed this subject with him.

Questioned whether they had discussed how, and by what route, they were to return to England after having passed through the Strait, he said that it seemed to him that some said it was to be by the same Strait, but others said that there was a route through another Strait that passed into the North Sea, but nobody knows this for a certainty or has passed through it.¹⁸

The last paragraph clearly describes the stage mentioned in the draft plan, of returning by the Strait of Magellan. Much more important, in the present connection, is the fact that it also mentions the idea of returning by an unknown strait in the north, where Drake subsequently made a reconnaissance, as suggested in Grenville's *Discourse*.

We now come to the traditional part of the story. Drake was taken by Walsingham to the Queen, and these or the like words she said:—

“Drake! So it is that I would gladly be revenged on the King of Spain for divers injuries that I have received.” And said further that I was the only man that might do this exploit and withal craved my advice therein; who told Her Majesty of the small good that was to be done in Spain, but the only way was to annoy him by the Indies.¹⁹

The nature of Drake's arrangement with the Queen is not known. It may have been to raid Spanish treasure ships, or to seize the Isthmus of Panama in conjunction with Oxenham, as suggested by Williamson.²⁰ Drake, before entering the Pacific, referred to setting “by the ears” the three mighty monarchs of England, Spain, and Portugal,²¹ and Winter's report shows that the final arrangement included a visit to the neighbourhood of the Moluccas, where the indefinite nature of the Spanish-Portuguese boundary afforded an excellent opportunity for the English to gain a footing.

Sir Humphrey Gilbert's *Discourse* had just been published,²² with a sketch of the Ortelius map of 1564, showing the Moluccas

(18) Nuttall, pp. 9–10.

(19) Cooke's narrative, as given by Corbett, p. 208.

(20) *The Age of Drake*, p. 187.

(21) Williamson, *Sir John Hawkins*, p. 392.

(22) In 1576. He states that it was written in 1566, but it was evidently brought up to date. See W. G. Gosling, *Life of Sir Humphrey Gilbert*, London, 1911.

almost due south of the narrow sea of Anian. Frobisher was making his voyages in search of the North-west Passage, and Grenville had submitted his *Discourse* on the search from the western end. As Drake actually made this search, it seems evident that it was included in the final plans for the voyage. These may have included an act of possession "about Sierra Nevada" as suggested by Gilbert, or possibly north of the Spanish explorations and well within territory covered by the "East, West and North" of the English charters. A New England in this neighbourhood would not conflict with New France and, even if the Strait were not found, the name on the map would dispose of any Spanish pretensions to a closed Pacific east of the Portuguese boundary.

It may be too early to state that the upper star on Drake's coat of arms represents one of the objects of the voyage, as well as one of the accomplishments. British Columbia can, however, contribute to the solution of the problem by showing that Drake reached a high northern latitude in searching for the Strait of Anian in the summer of 1579.

THE SEARCH FOR THE STRAIT.

Most accounts of the voyage bring Drake to the neighbourhood of 48 degrees, and some of them refer to his search for the Strait, or the route by the North-west Passage. The map printed by Hakluyt in 1587, and his reference to "Noua Albion vpon the backside of Canada" in 1589, suggest that he had shared the general belief in the higher latitude. But certain copies of *The Principall Navigations* contain six extra leaves giving an account of *The Famous Voyage of Sir Francis Drake*, probably printed after 1589, as the pages are not numbered. The name of the author is not known. The highest latitude here mentioned is 42 degrees (and in a subsequent edition 43),²³ suggesting that Drake merely reach the coast of Oregon. And the account suggests that Drake was not looking for the passage, but taking the most suitable route to the Moluccas. The rare first edition, however, has a marginal note—"A purpose in Sir Francis to returne by the Northwest passage."

(23) London, 1600, III., p. 440.

As the narrative gives the opposite impression, it seems that Hakluyt, as editor, wrote the marginal note himself. It would accordingly appear that Hakluyt believed, at first, in the higher latitude and in the search for the passage. The two beliefs are complementary. Drake sailed from Guatulco, in the south of Mexico, and spent eight weeks at sea. If he came north to 48 degrees he was not merely shaking off the Spanish pursuit, and looking for a suitable place in which to repair his ship. He was searching for the Strait, the approach to the North-west Passage.

THE AUTHORITIES FOR 48 DEGREES.

The latitude of 48 degrees was generally accepted until the middle of the nineteenth century, when it became involved in the Oregon boundary question. The latitude was debated at some length by Robert Greenhow, Librarian of the Library of Congress, who favoured 43 degrees, and Sir Travers Twiss, who believed in 48. Long after the boundary question was finally settled the debate was revived by Professor George Davidson, of the United States Coast and Geodetic Survey, and Sir Julian Corbett.²⁴ Davidson, who believed in 43 degrees, was the highest authority of the time on the winds and currents of the Eastern North Pacific, and he was able to point out that the course suggested by Corbett was not feasible. Davidson was, however, misled by an imperfect reproduction of the Hondius map of the Drake and Cavendish voyages, and he was not able to use the bearings given by John Drake, which had been quoted incorrectly. Recent research, furthermore, has thrown an entirely new light on the direction of the currents at different times of the year.

Wagner accepts Davidson's viewpoint, and rightly attributes great importance to the need of following Drake's course from Guatulco by a study of the prevailing winds. He does not, however, plot the course afresh, and he mainly depends on Hakluyt's *Famous Voyage*, assuming that the additional information in *The World Encompassed* is due to interpolation. Evidence is now available to show that *The Famous Voyage* is badly abbreviated, so the accompanying plot of the course is based on the fuller account, supplemented by John Drake's bearings.

(24) Corbett gives a brief review of the discussion. p. 289.

Wagner's standard work of 1926 is indispensable for a study of the subject, and a great deal of useful information appears in his other writings. The Spanish accounts of Drake's proceedings as far as Guatulco, and the log of Nuño da Silva, the Portuguese pilot, are given by Mrs. Nuttall. Da Silva mentioned that Drake and his young kinsman [John] were fond of painting. Don Francisco de Zarate referred to pictures of the coast, painted in its exact colours "so naturally depicted that no one who guides himself according to these paintings can possibly go astray."²⁵ Unfortunately they have been lost, and no log of the whole voyage is known to exist. Beyond Guatulco we have to depend on abbreviated accounts and other evidence, and on compilations which are sometimes contradictory.

Valuable evidence was given by John Drake at Santa Fé in the Province of the River Plate, and before the Inquisition at Lima. He accompanied the Fenton expedition in 1582, with other members of the crew of the *Golden Hinde*, and was wrecked in the estuary of the Plate and subsequently taken prisoner. He mentioned 48 degrees four times, and the change of course in 44 degrees, and referred to Nova Albion. He also gave bearings which enable us to plot the course from Guatulco.²⁶

The diary of Madox, chaplain on the Fenton expedition, refers to 48 degrees on the "back syde of Labradore and as Mr Haul supposeth, nye thereunto." Hall had been with Frobisher. The extract was published by Professor Taylor in the *Pacific Historical Review* in 1932.²⁷

John Davis, the Arctic navigator, gives "forty-eight degrees being on the backe syde of Newfound land" in *The Worldes Hydrographical Discription*.²⁸ He was a partner of Sir Humphrey Gilbert's brother Adrian, and searched for the passage three times by way of Davis Strait, and passed through the Strait of Magellan, but was unable to reach Nova Albion. After this he accompanied the Dutch to the East Indies, and then piloted the first fleet of the East India Company to the Spice Islands.

(25) Nuttall, pp. 208, 303.

(26) Nuttall, pp. 31, 32, 50; Wagner, p. 333, note 16.

(27) I., pp. 360-9.

(28) London, 1595. Reprinted by the Hakluyt Society in *The Voyage and Works of John Davis*, 1880, p. 205.

He was a high authority on navigation, and definitely interested in the question of Drake's latitude.

An account of the circumnavigation appeared in the 1592 edition of Stow's *Chronicles of England*. This may have been the first account to appear in print. It states that Drake "came backward to the lineward the tenth of June 1579." The latitude given is 47 degrees.²⁹

The unsigned notes commonly known as the *Anonymous Narrative*, in the handwriting of the time, mention the search for the Strait and the latitude of 48 degrees.³⁰

Various maps³¹ show Nova Albion in 48 degrees, and some of these indicate the track of the ship, but obviously without any attempt at accuracy. The maps are reproduced by Mr. Wagner. On the Hondius map of the Drake and Cavendish voyages the track has been erased north of 42 degrees, evidently to conform with *The Famous Voyage*.

The fullest account appears in *The World Encompassed by Sir Francis Drake . . . carefully collected out of the notes of Master Francis Fletcher preacher in this imployment, and divers others his followers in the same*. London 1682. Fletcher's manuscript is available as far as the south of Chile. His rambling style and pious interjections can generally be recognized, and the missing portion of the notes was evidently used by the compiler of *The World Encompassed* for the voyage north of Guatulco and the proceedings in California. The sources of this account and of *The Famous Voyage* are fully discussed by Wagner.³²

The Famous Voyage confuses the sequence of events at Cano and Guatulco. Both accounts mention 42 degrees, and beyond this the language is similar, but *The Famous Voyage* is shorter and does not mention any higher latitude in the first edition. The comparative value of these accounts, at this point, is decided by higher authority:—

(29) The extract from the edition of 1635 is reprinted by Wagner, pp. 303-07.

(30) Harleian MSS., British Museum, No. 280, Folio 23. Extracts are given by Wagner, p. 243, *et seq.*

(31) Such as the map in Hakluyt's Paris edition of Peter Martyr; the "silver map" of Drake's voyage; the French and Dutch Drake maps.

(32) pp. 238, 286.

BEE IT KNOWNE VNTO ALL MEN BY THESE PRESENTS
IVNE 17 1579

BY THE GRACE OF GOD AND IN THE NAME OF HERR
MAIESTY QVEEN ELIZABETH OF ENGLAND AND HERR
SVCCCESSORS FOREVER I TAKE POSSESSION OF THIS
KINGDOME WHOSE KING AND PEOPLE FREELY RESIGNE
THEIR RIGHT AND TITLE IN THE WHOLE LAND VNTO HERR
MAIESTIES KEEPEING NOW NAMED BY ME AN TO BEE
KNOWNE VNTO ALL MEN AS NOVA ALBION.

FRANCIS DRAKE

A plate of brass bearing the above inscription was picked up by Mr. Beryle Shinn in 1936 and handed to Dr. H. E. Bolton.³³ It was subsequently ascertained that the plate had been found a few years before near Drake's Bay and thrown away near San Francisco Bay, not far from the spot when Shinn found it. The plate and the lettering have been carefully examined by Professor Fink, of Columbia University, and other experts, and the question of its authenticity now appears to be finally settled.³⁴

This important find is described by Professor Bolton in his paper *Francis Drake's Plate of Brass* read before the California Historical Society in 1937. He points out that *The World Encompassed* and the other accounts vary on vital matters in describing the plate, the inscription, and the sixpence. These discrepancies had long puzzled him. Only one recourse remained—to find the plate. This shows that “the phraseology of the inscription in nearly every particular is that of *The World Encompassed*, our fullest version of Fletcher's account.”³⁵

His paper is supported by excerpts from the various early accounts, which enable the reader to do his own textual criticism. The accounts of the Indian houses are especially interesting. *The Famous Voyage* states that they are “digged round about with earth”; *The World Encompassed* that they are “digged round within the earth.”³⁶ The latter is evidently an account, by an eye-witness, of the typical semi-subterranean house which

(33) Professor of American History at the University of California.

(34) For the complete analysis and report, see Colin G. Fink and E. P. Polushkin, *Drake's Plate of Brass Authenticated*, San Francisco, 1938.

(35) *Drake's Plate of Brass*, San Francisco, 1937, p. 11.

(36) See Appendix II.

extended from the coast of California to the interior of British Columbia, where the pits are known as keekwillie holes. A sketch of the zone in which these are found appears in *Native Houses of Western North America*, by T. T. Waterman.³⁷

Here we have an instance, independent of the Plate of Brass, confirming Professor Bolton's conclusion that Fletcher is our chief source of information for details regarding events at the "convenient and fit harborough." "His statements were published in varying degrees of abridgment, the fullest version being that in *The World Encompassed*. Since the abridgments leave out important details, this version may be regarded as our most faithful available record of what Fletcher wrote. In the abridgments at this point there are few contradictions of the fuller narrative, but by leaving out essentials they convey imperfect impressions."³⁸

One of the essentials omitted in *The Famous Voyage*, as the evidence submitted in summary form in this paper is intended to show, is the latitude of 48 degrees.

FLEURIEU'S WHIRLPOOL.

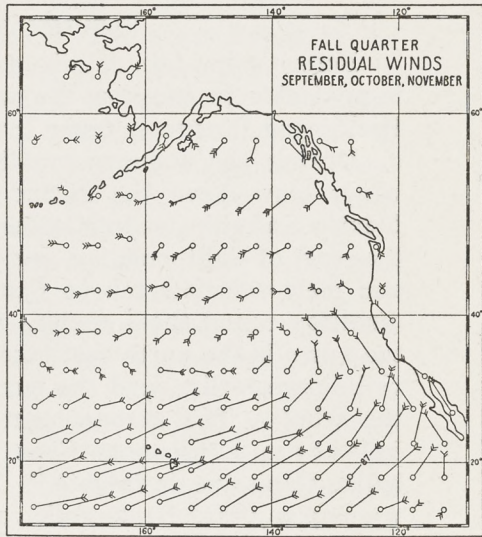
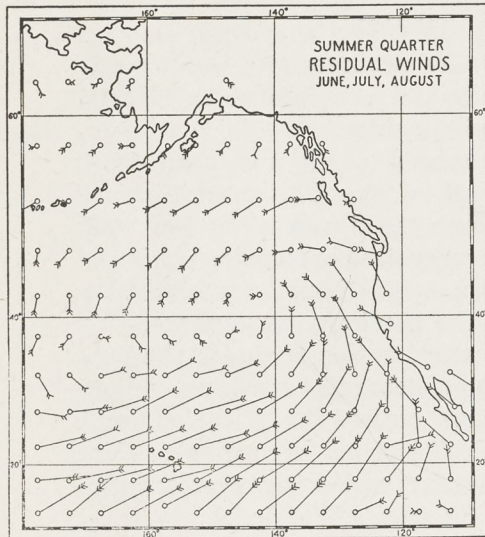
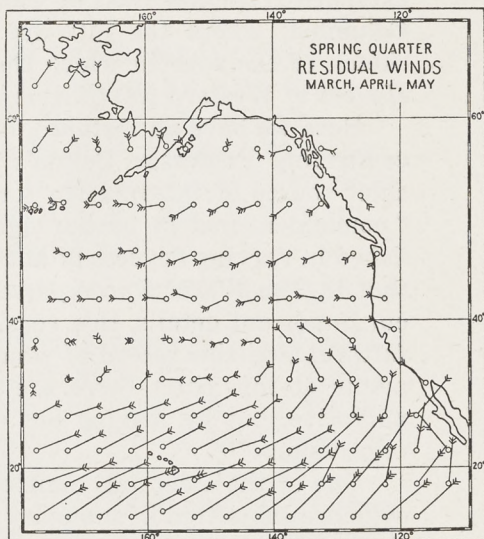
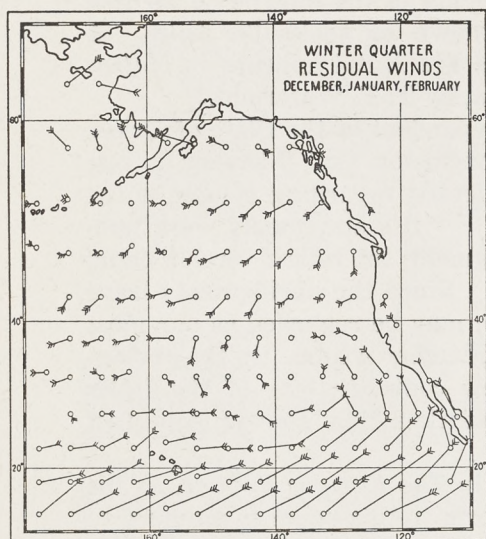
Before going into details of Drake's course from Guatulco, it is advisable to consider the winds and currents of the North Pacific and the routes taken by sailing ships.

During the summer months strong north and north-west winds blow down the Pacific coast of the United States and Mexico, and ships sailing to the north stand well out to sea. Off the coast of California is a region where the barometer is high—and meteorologists tell us that the winds blow in a clockwise direction round these regions in the northern hemisphere. To the south is the north-east trade-wind, to the north are the prevailing westerlies, and the currents, generally speaking, follow the winds. The arrangement was noticed by Fleurieu, and called by an Englishman *Fleurieu's Whirlpool*, according to Kerhallet, Capitaine de frégate.³⁹ The expression is convenient, for we may say that Drake followed Fleurieu's Whirlpool.

(37) Published by Museum of the American Indian, New York, 1921.

(38) *Drake's Plate of Brass*, pp. 9-10.

(39) Charles Philippe de Kerhallet, *Considérations Générales sur l'Océan Pacifique*, Paris, 1851, p. 61 and map opp. p. 43. Fleurieu was the author of *Voyage Autour du Monde . . . par Étienne Marchand*, Paris, 1798.



The Pacific Ocean north of 10° N. latitude and east of 170° W. longitude, showing the residual winds calculated for the four seasons from the data given on the pilot charts published by the U.S. Hydrographic Office. The length of the arrows is proportional to the resultant drift, while the number of feathers on the arrows gives the average force according to the Beaufort Scale.

(Reproduced by kind permission of the International Fisheries Commission.)

Ships sailing out of San Francisco during the summer stand right out to sea, and approach the Strait of Juan de Fuca from the south-west—and the route on the present pilot charts was laid down for vessels which could sail closer to the wind than the *Golden Hinde*. Guatulco, in the south of Mexico, is conveniently placed for getting into the April trade-wind. After leaving this port Drake took a "Spanish course" and sailed in longitude for 500 leagues, according to one account; by another account 600 leagues, and by another 800. After this he continued, clockwise, round the whirlpool.

The problem of the Pacific winds was first solved in the southern hemisphere. Off the coast of South America the whirl is in the opposite direction. In 1547 it took an expedition eight months to travel from Callao in Peru to Chile, against the south wind and the Humboldt current. In 1563 the problem was solved by the pilot Juan Fernandez, who stood well out to sea instead of following the coast. Fernandez ran out from Callao before the south-east trade-wind, working to the south until he encountered the westerlies, and then running before them into Valparaiso. He performed the journey in twenty days, discovering on the way the island made famous in after-years as the abode of Alexander Selkirk. "The feat of seamanship on the part of Juan Fernandez won for him very full official recognition. It was indeed a most important discovery. He received a grant of land in the lovely valley of Quillota in Chile . . . and his descendants were still living in Quillota when I was there." The quotation is from Sir Clements Markham's anniversary address on Balboa in 1913.⁴⁰

In 1599 Francisco de Quiñones used the new way "and performed the voyage from Callao to Concepcion in the then unprecedentedly short time of 16 days." The difference in latitude is 24 degrees, and in spite of the roundabout route southing was made at a degree and a half per day. This rate, about four knots, may be compared with the performance of the *Golden Hinde*.

The idea of sailing west before the trade-wind and east in high latitudes was not new; it had been applied to the whole Pacific, but early attempts to return to America were not suc-

(40) *Geographical Journal*, XLI. (1913), pp. 517-527.

cessful. Magellan's flagship, the *Trinidad*, went north to 42 degrees, but had to return to the Moluccas. Del Cano (of the coat of arms) was sent again from Spain, under Garcia de Loaysa, and with them went Urdaneta, who eventually solved the problem. Cortes sent Saavedra to assist them in the Moluccas, and so initiated the famous run from Mexico to Guam. Spain then relinquished the Moluccas, but continued to claim the Philippines.

A later expedition from Mexico made various discoveries, but still nobody sailed east to America. Urdaneta retired to a monastery, but eventually received a royal request to accompany Legaspi, who conquered the Philippines. Urdaneta sailed back to Mexico in 1565,⁴¹ and after this the Manila galleon made the round trip across the Pacific for centuries.

THE SPANISH COURSE.

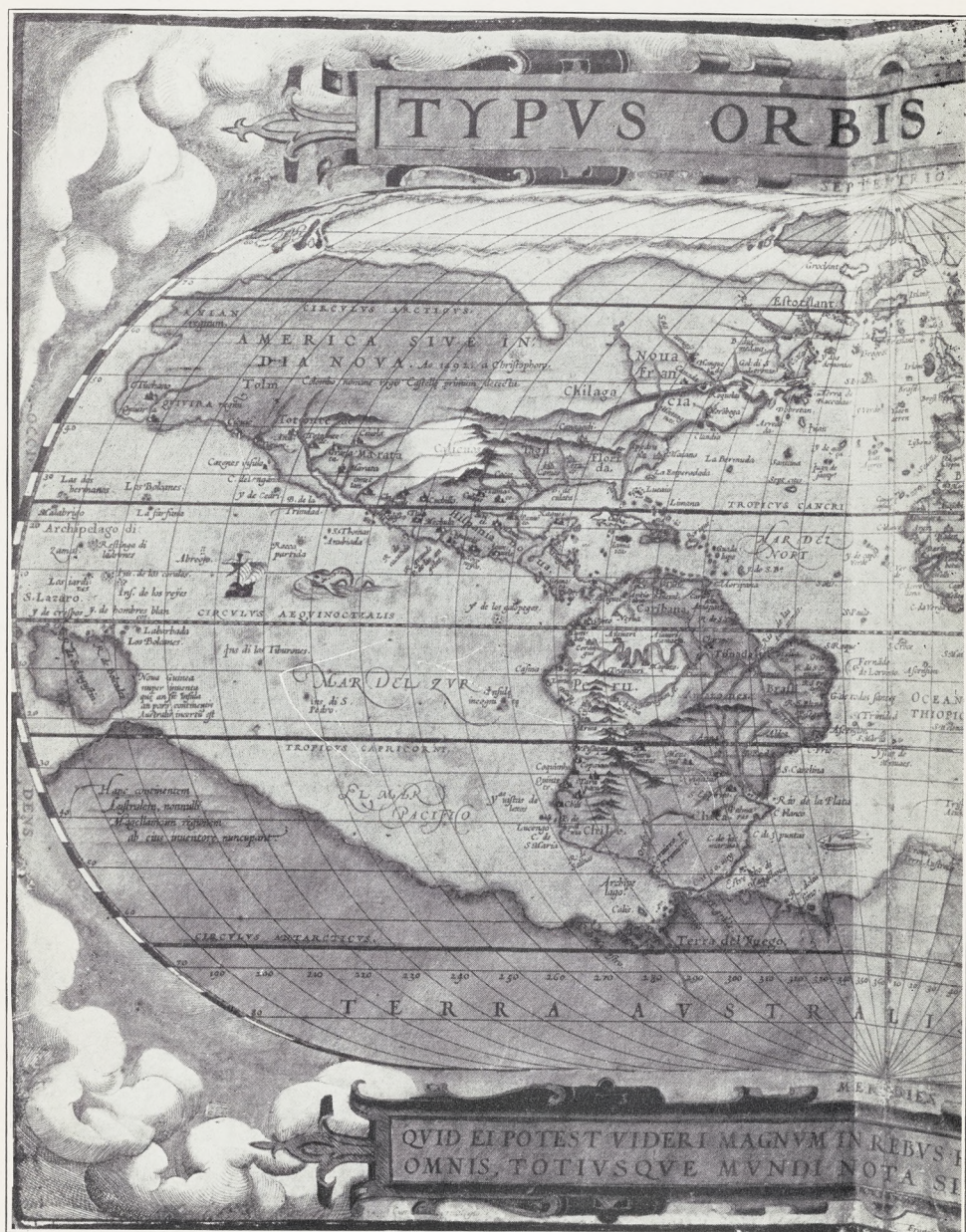
Anson captured the Manila galleon in 1743 and found that she had standing orders to sail west between the 13th and 14th parallels.⁴² His chart shows her track, tacking out of Acapulco to the latitude of Guam and then "running down the latitude" to that island, where fires were lit to prevent her from passing it. Her eastbound track takes a zigzag course to the north, sometimes reaching 35 degrees, and on approaching California takes a more direct course to Acapulco. The track clearly indicates the prevailing winds, and suggests that the northern coast could best be reached from Central America by sailing west along a known course, before turning to the north.

Drake prepared his ship for the northern voyage near the island of Cano, about 8° 40' N., and had the good fortune to capture a Spanish frigate taking two China pilots to Panama, where they were to meet a high official and conduct him to the Philippines.⁴³ The pilots had been sent by the Viceroy of New Spain, and their charts and sailing directions gave full information about the route across the Pacific.

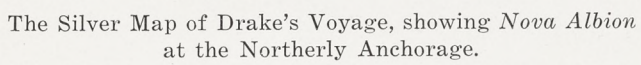
(41) Full details are given in Wagner's *Spanish Voyages to the Northwest Coast of America in the Sixteenth Century*, San Francisco, 1929.

(42) George Lord Anson, *A Voyage Round the World*, 9th edition, London, 1756, pp. 247, 385.

(43) See the many reports and depositions printed in *New Light on Drake*.



Part of the Typus Orbis Terrarum, from the Ortelius Atlas, first issued in 1570.



The Silver Map of Drake's Voyage, showing *Nova Albion*
at the Northerly Anchorage.

Our General at this place, and time . . . began to consider and to consult of the best way for his Countrey.

The quotation is from *The Famous Voyage*, which goes on to say that Drake decided to return by way of the Moluccas and the Cape of Good Hope.

Upon this resolution he began to thinke of his best way to the Moluccaes, and finding himselfe where he nowe was becalmed, he sawe, that of necessitie he must be forced to take a Spanish course, namely to saile somewhat Northerly to get a winde. We therefore set saile, and sailed in longitude 600. leagues at the least for a good winde, and thus much we sailed from the 16. of Aprill till the 3. of June.

The information is valuable, but has to be disentangled. *The Famous Voyage*, like the *Anonymous Narrative*, gives Cano and Guatulco in the wrong order and so confuses the sequence of events. They sailed "somewhat northerly" from Cano, and sailed "in longitude" after leaving Guatulco. The latter point is made clear by *The World Encompassed*.

From Guatulco we departed the day following, viz., Aprill 16. setting our course directly into the sea: whereupon we sayled 500. leagues in longitude, to get a winde: and betweene that and June 3. 1400. leagues in all, till we came into 42. deg. of North latitude.

Sailing "in longitude" suggests sailing due west. Coupled with the idea of a Spanish course it suggests the route shown on Anson's chart, where ships had orders to keep between the 13th and 14th parallels. Such a course would lie "somewhat northerly" from Cano, and "directly into the sea" from Guatulco.

Legaspi and Urdaneta had been instructed to take a more southerly course, apparently to examine certain islands reported to lie about the latitude of 10 degrees,⁴⁴ but as no use was made of these islands it seems almost certain that subsequent voyages would be made along a course in the latitude of Guam, as indicated by Anson. Such a course would be well within the trade-wind, north of the equatorial counter-current, and free from all obstructions. Drake would be well advised to take it before turning to the north.

THE NORTHERLY ANCHORAGE.

The Famous Voyage continues:—

The 5. day of June, being in 42. degrees towards the pole Arctike, we found the aire so colde, that our men being greeuously pinched with the

(44) Wagner, *Spanish Voyages*, pp. 107, 349, note 62.

same, complained of the extremitie thereof, and the further we went, the more colde increased vpon vs. Whereupon we thought it best for that time to seeke the land, and did so, finding it not mountanous, but lowe plaine land, & clad, and couered ouer with snowe, so that we drewe backe againe without landing, till we came within 38. degrees towards the line.

The quotation given above from *The World Encompassed* makes it fairly clear that they reached 42 degrees on June 3. The account goes on to say that the cold began "in the night following" and that they made an additional two degrees under these conditions. They would then be in 44 degrees. On June 5 they were forced by contrary winds to make for land, where they anchored in a "bad bay" in 48 degrees. These latitudes are confirmed by the early and independent evidence of John Drake, which makes it clear that the wind changed in 44 degrees, and that they altered course, discovering land in 48 degrees.⁴⁵

To continue from *The World Encompassed*:—

From the height of 48. deg. in which now we were, to 38. we found the land by coasting alongst it to bee but low and reasonable plaine: euery hill (whereof we saw many, but none verie high) though it were in June, and the Sunne in his neereſt approach vnto them being couered with snow.

The mountains might appear like hills to men who had passed through the Strait of Magellan and followed the coast of South America, but *The Famous Voyage* does away with them altogether and brings the snow from their summits to the level of the low plain land. *The Famous Voyage* does not state that 42 degrees was the highest latitude reached, but the text gives that impression, and this is heightened by Hakluyt's marginal note. The text is evidently taken from an original which resembles *The World Encompassed*, but it is badly abbreviated and gives the wrong impression, as it does in the case of the Plate of Brass and in the description of the native houses of California. The fact that *The Famous Voyage* does not mention the higher latitude clearly does not prove that 48 degrees is an interpolation in *The World Encompassed*, or a fiction invented before John Drake left England in 1582, nor does it indicate that other authorities which mention 48 degrees are incorrect. It seems hardly necessary to labour the point, but it is interesting to see how the idea of a lower latitude was perpetuated.

(45) Nuttall, p. 50. See Appendix II. for the text of John Drake's statement.

Apparently Hakluyt was feeling worried by certain contradictions in the narrative. In the second edition of *The Principal Navigations* (III., 440) he omitted "in longitude," changed "42" to "43" degrees, and abbreviated the description of the shore. He also printed a separate account of Drake's course from Guatulco and the proceedings in California. This account mentions Cano in the proper order, but the sequence of the context is not correct. The result is astonishing. "Our General . . . began to consider and to consult" at *Guatulco*, where he saw that he must be forced to take a Spanish course, namely to saile somewhat Northerly to get a winde. Wee therefore set saile, and sayled 800 leagues at the least for a good winde, and thus much we sayled from the 16 of Aprill after our olde stile till the third of June.

The latitude mentioned is 43 degrees. Apparently the "800 leagues" was manufactured to suit the distance along the coast, as the idea of sailing in longitude had been eliminated. The account gives the impression that Drake sailed northerly from Guatulco to get a suitable wind for the Moluccas. He would not have done this with the Spanish charts in his possession.

The first edition of *The Principall Navigations* is exceedingly rare, so the accounts in the second edition, supported by Hakluyt's marginal notes, have given rise to the belief that Drake turned south in 43 degrees. English writers have continued to refer to 48 degrees, but apparently a practicable route to the northerly anchorage has not been suggested. Fresh information has now come to light, and this enables us to plot the course afresh.

Sir Julian Corbett plotted the 500 leagues due west, but was not able to use the bearings given by John Drake, N.W. and N.N.E., as the latter had been printed N.N.W. Mr. Wagner points out that the Spanish text printed by Lady Elliott-Drake gives N.N.E. As they could not sail N.W. from Guatulco we must apply the bearings to the end of the 500 leagues "in longitude." The leagues, according to John Davis, would correspond to three of our nautical miles, and the measurement would probably begin after they had got on the westerly course somewhere south-west of Guatulco. The change from N.W. to N.N.E. would

be at the northerly limit of the trade-wind.⁴⁶ By plotting these courses, and making allowance for current, we bring the *Golden Hinde* to 44 degrees somewhere in the neighbourhood of the 140th meridian. This would enable the *Golden Hinde* to reach land in 48 degrees without sailing against the prevailing wind.

THE DATE OF ARRIVAL.

The date of changing course in 44 degrees is given by *The World Encompassed*, as already mentioned:—

The 5. day of Iune, wee were forced by contrary windes, to run in with the shoare, which we then first descried; and to cast anchor in a bad bay, the best roade we could for the present meete with . . .

It was obviously impossible for them to jump at once from 44 to 48 degrees, and it appears that a date has been omitted. The part of *The World Encompassed* which describes Drake's voyage in the North Pacific seems to be a fairly complete copy of Fletcher's notes; but certain events are omitted, such as the capture of the Spanish charts at Cano, Drake's detention of the pilot Colchero, and the seizure of the frigate which they brought to California.

The date of June 10 was given by John Stow, in *The Chronicles of England*, in the edition of 1592—which, as noted above, was possibly the first account of the voyage to appear in print. The date fits well with the rest of the evidence, giving five days from the end of the traverse we have plotted to 44 degrees, and allows seven days for the run south to the haven in California, where Drake arrived on June 17.

WASHINGTON OR VANCOUVER ISLAND?

The track plotted is eminently practicable. The N.W. course is close to the *New Route* described by Imray in 1868, in his *Sailing Directions for the West Coast of North America*. The N.N.E. course and the run towards land are close to the northern course of the sailing track from San Francisco to the Strait of Juan de Fuca.

(46) The limit of the trade-wind appears on the U.S. Pilot Charts of the North Pacific, which are issued monthly. A quarterly analysis of the currents is occasionally given on the back of the charts.

With regard to the latitude of 48 degrees we have to consider:—

1. Instrumental error.
2. Error of observation.
3. Error in dead reckoning.
4. Allowance for current.

1. Professor Davidson has tabulated, with great care, the errors in various latitudes given by Cabrillo and Ferrelo.⁴⁷ The smallest is 40 minutes, and the errors increase towards the end of the series taken by Ferrelo. If his observations are divided into three groups the errors are found to be consistent, giving averages of 47, 58, and 82 minutes, all in the same direction. The instrument was evidently getting out of adjustment as time went on. Perhaps we should allow Drake half a degree.

2. Error in observation. The sextant had not been invented, or the backstaff of John Davis. The instruments of the time were the cross-staff, which used the horizon; the quadrant, and the astrolabe. The error, at sea, might be anything up to one degree.

3. Dead-reckoning. Time was measured by the half-hour glass, and speed by estimation or the log. There seems to be no mention, at this period, of a glass indicating a few minutes for use with the log-line. A book of the period states that the log was timed by repeating words or sentences, but no example is given. Salutes have been timed by:—

Fourteen years a gunner's mate
And never been called a — — — —
Number One FIRE.

John Drake states that on their voyage they met with great storms.⁴⁸ "All the sky was dark and full of mist." *The World Encompassed* mentions the fogs at the northerly anchorage, and from this account it seems that the last observation on the way north may have been in 42 degrees. In this event the easterly run towards the land might give a large error, and the first rough estimate would be amended by a final latitude estimated from the southerly run towards California. The first estimate might account for the 47 degrees given by Stow.

(47) *Report of the U.S. Coast and Geodetic Survey for 1886*, Appendix No. 7, Washington, 1887.

(48) Nuttall, p. 31.

4. Allowance for current. The combined effect of the Kuro Siwo and the West Wind Drift, described for convenience as the Japanese Current, has brought disabled junks and other craft across the Pacific at the average rate of 10 miles a day.⁴⁹ In 1865 Professor Davidson discovered that the current divided off the American coast, one branch running north and west round the Gulf of Alaska and the other south to California. He placed the division in 148° W., between latitudes 46° and 50° , and from the drift of redwood logs, etc., he concluded that a strong inshore current ran to the north off the coast of Oregon and Washington. Recent research has suggested that the Japanese Current divides nearer the coast, near 140° W., about 40° N. in winter and 50° N. in summer. The current, then, flows north in winter and south in summer off the coast in question. Theoretical determinations have now been confirmed by the drift of bottles released by the International Fisheries Commission. Diagrams of the drift and particulars of the distance travelled by individual bottles have been printed by the Commission, with analysis of the prevailing winds, and a full discussion.⁵⁰

Some of the bottles released in August drifted south at the rate of 5 miles a day, and a few reached Hawaii. Perhaps we may allow a current correction of half a degree in the case of the *Golden Hinde*, bringing the latitude to $48\frac{1}{2}$ degrees. If we allow anything from $\frac{1}{2}$ to $1\frac{1}{2}$ degrees for the combined effect of 1, 2, and 3, we place the anchorage between 47° and 48° degrees

(49) C. W. Brooks, *Japanese Wrecks . . . in the North Pacific*, San Francisco, 1876. The vessels were generally driven offshore by the December monsoon, and it has been observed that glass fishing floats, which are often marked with Japanese characters, begin to arrive on the west coast of Vancouver Island in January. For this information I am indebted to R. Whittington, of Wickaninnish Bay, Long Beach, north of Ucluelet. Eleven of these floats were seen north of Honolulu, between 26° and 40° north, by Mr. and Mrs. R. S. Strout in the yacht *Igdrasil* in June and July, 1938, as narrated in *Yachting Monthly*, London, February, 1939. For this reference I am indebted to J. Genge, of Victoria. See also T. A. Rickard, "The Use of Iron and Copper by the Indians of British Columbia," *British Columbia Historical Quarterly*, III. (1939), p. 47.

(50) *Report of the International Fisheries Commission*, No. 9. "Life History of the Pacific Halibut." William F. Thompson and Richard Van Cleve, Seattle, 1936, pp. 50-61.

on the coast of Washington, or between 49 and 50 degrees on the coast of Vancouver Island.

The World Encompassed states that ". . . though we searched the coast diligently, euen vnto the 48. deg. yet found we not the land, to trend so much as one point in any place towards the East,⁵¹ but rather running on continually North-west, as if it went directly to meet with Asia . . ." The north-west bearing corresponds to the coast of Vancouver Island. It would appear then that the "bad bay" where Drake anchored in the recorded latitude of 48 degrees was on the west coast of Vancouver Island. There is additional evidence to this effect, but it cannot be adduced in a short article.

Drake travelled south for a week and repaired his ship in California, where he took possession, or accepted possession, in the name of Queen Elizabeth. He named the country *Albion*, "and that for two causes; the one in respect of the white bancks and cliffes, which lie toward the sea: the other that it might haue some affinity, euen in name also, with our owne country, which was sometime so called."⁵²

ALBION AND ENGLAND.

At the town of Totnes, on the River Dart, in Devon, they show one the Brutus Stone. Here, they say, landed Bryttys, of the Trojan royal line, who changed the name of Albion to Britain.⁵³ The story, told by Geoffrey of Monmouth, appears to be based on ancient British tradition.

The Romans saw and conquered, but the name of Britain remained. With the Angles and Saxons came the name of England. The British, gradually driven to the west, became to

(51) Apparently they were now depending on the Ortelius map of 1564, as they had been misled by the peculiar bulge on the coast of Chile which appeared on the later maps of Mercator and Ortelius. See, for instance, the reproduction of the *Typus Orbis Terrarum*.

(52) *The World Encompassed*.

(53) ". . . in totonesio littore applicuit. Erat tunc nomen insulae albion." "And then Bryttys desired to call the island by his own name, and that the race inhabiting it should be called bryttaniaid . . . And from that time on, the language of that people was called bryttanec." See the Latin texts and early translations in *The Historia Regnum Britanniae of Geoffrey of Monmouth*, by Acton Griscom, New York, 1929, p. 249. Geoffrey of Monmouth wrote about A.D. 1136.

the invaders Welsh and Cornish. But Athelstan, having defeated the Danes, styled himself King of all Britain.⁵⁴

When the Tudors came to the throne it was jokingly said that the Welsh had conquered England. Eminent men of Welsh descent⁵⁵ used the expression *British Empire* in the reign of Elizabeth. Another great Queen called by its name—British Columbia. An earlier name was Nova Albion “(that is to say) new Englande.”

When Drake entered the Pacific New Spain had been in existence since the conquest of Mexico; New France had been on the map for the greater part of the century; now there was to be a New England. “Noua Albion (that is to say) new Englande” appeared in Blundevile’s *Exercises*, printed during Drake’s lifetime.⁵⁶ John Smith applied the name *New England* to North Virginia, and it was adopted in the Charter of 1620, which defined the territory as extending from sea to sea. The minutes of the Council for New England record the fact that Nova Albion was considered as an alternative name. The northern boundary of New England extended from sea to sea in 48 degrees, where Nova Albion had appeared on the maps in the recorded latitude of Drake’s northerly anchorage.⁵⁷

A map in the British Columbia Archives shows the northern boundary of New England near the Pacific coast and, a degree to the north, the early stage of the present international boundary. This was suggested by the English as the northern boundary of

(54) *Rex Totius Britanniae* appeared on his coins.

(55) Such as Hakluyt and Dr. Dee. The latter used the expression in *The Art of Navigation, or the British Monarchy*, London, 1577. The book was dedicated to Sir Christopher Hatton, whose crest gave rise to the name of the *Golden Hinde*. She sailed from England as the *Pelican*.

(56) M. Blundevile. *His Exercises* . . . London, 1594. Extracts are given by Wagner, p. 312, etc.

(57) The connection seems evident when we remember that South Virginia had been extended from sea to sea, while North Virginia remained a strip on the Atlantic coast, bounded on the north by the 45th parallel. This line, extended to the west, would conflict at once with New France, and any attempt to define a common boundary would lead to complications. The “descriptions” in the second and third Virginia charters had been based on clearly defined and indisputable starting-points, and apparently this fundamental principle was accepted in the charter for New England. The northern boundary was placed in 48 degrees, where Nova Albion had appeared on early maps in the recorded latitude of Drake’s northerly anchorage.

New France, which began with a line running south-westerly from the coast of Labrador, extended to 49 degrees and then to the west, leaving the French a theoretical strip of one degree. Through some strange alchemy the proposed northern boundary of New France became a southern bound of Canada, and the characteristic line of the great unfortified frontier.

This line has been regarded as a symbol of the friendly relations between the two great branches of the English speaking peoples, and it is linked in a curious way with their history. Alexander Brown, in *The Genesis of the United States*, traces the history of that country to the English struggle with Spain for a footing on the continent. It is now clear that the beginning of this struggle, and the genesis of "New England in America," can be traced to the summer of 1579. Others have suggested that the British Empire overseas began with Sir Humphrey Gilbert's act of possession in Newfoundland in 1583, but Drake had taken possession on the Pacific coast several years before, and the name of Nova Albion appeared on early maps in the recorded latitude of his northerly anchorage. It now begins to appear that this anchorage is still within the Empire. The joint origin of the two great democracies is thus linked with the origin of their common boundary.

Time and the ocean and some guiding star,
In high cabal have made us what we are.

—Sir William Watson.⁵⁸

Certain sketches of Drake's coat of arms show a star above the globe, but the stars above and below the fesse evidently refer to terrestrial accomplishments, the upper star indicating Nova Albion.

The events of a famous voyage around the world may well be commemorated in the three hundred and sixtieth year, as the circuit of the earth is 360 degrees. The *Golden Hinde* reached Nova Albion in June, 1579.⁵⁹ The Geographic Board of Canada

(58) Quoted by Winston Churchill in *Responsibilities of Empire*, London, 1937.

(59) June 10, according to the old style, is by our present reckoning June 20, eve of the longest day.

has accordingly, at the instance of the Province, named the highest mountain on Vancouver Island after Drake's ship, the *Golden Hinde*.⁶⁰

R. P. BISHOP.

VICTORIA, B.C.

(60) The height of the mountain, 7,219 feet, was reported by Norman Stewart, B.C.L.S., in 1937. The names *Queen Bess*, *Grenville*, *Gilbert*, *Raleigh*, and *Sir Francis Drake* appeared on the map of British Columbia in 1933. The names are applied to certain of the Coast Mountains which are over 10,000 feet in height, with the exception of *Sir Francis Drake* which is distinguished in another way. It is suggested that an adjoining group, the highest within the Province, be named the *Albion Mountains*.

Albion, *the white land*, is the ancient name of Britain; linked through the Celtic *alb* with Alp, it forms a suitable mountain name. (See Eilert Eekwall, "Early Names of Britain," *Antiquity*, IV., No. 14, June 1930, p. 150.)

APPENDIX I.

THE GRENVILLE PROJECT AND THE DRAFT PLAN.

The draft plan of Drake's voyage shows that he was to pass through the Strait of Magellan and explore northwards along the coast "as of the other" to 30 degrees, and that the places to be visited were supposed to be not under the obedience of any Christian prince. The fact that the coast of Chile was under the obedience of Spain as far as 40 degrees south led Miss Taylor to infer that the draft plan referred to the coast of the Terra Australis, which was supposed to extend from Tierra del Fuego to the neighbourhood of New Guinea,¹ and beyond this to Locach, or Beach, which had attracted the attention of the learned Dr. Dee. She also inferred that Grenville was mainly interested in the Terra Australis, and that when the scope of the draft plan was extended to the Moluccas, Drake was to follow the imaginary shore in that direction.

Williamson has shown that the draft plan may have referred to the coast of Chile, as already mentioned, and Miss Taylor seems to admit the possibility in the *Pacific Historical Review*, quoted in note 7. Grenville's interest in South America is clearly indicated in the depositions given by Mrs. Nuttall in *New Light on Drake*, from which the following extracts are taken.²

When Drake raided the port of Callao, Oxenham was in the hands of the Inquisition at Lima, with the master of his ship and the pilot, John Butler. They were asked if Queen Elizabeth or any other person had proposed to establish settlements on the coast of the North Sea, or in the region of the Strait of Magellan, or on the coast of the South Sea. They knew of the Grenville project, and the master thought it referred to the South Sea. Oxenham's reference to the River Plate, the Strait, and the South Sea has already been quoted. Butler had heard that Grenville's settlement was to be ". . . on the coast of the North Sea, towards the River Plate, in a country of which they had reports, from some Portuguese, that it was very rich. The Queen had demanded that they were to give a security of thirty to forty thousand pounds that they would not touch lands belonging to King Philip, and on this account the expedition was frustrated, as aforesaid."

It is evident that Grenville proposed to take advantage of the fact that the lower reaches of the River Plate had been abandoned. The opportunity, however, was soon lost, for Buenos Aires was reoccupied in 1580. Communications were laid across the continent so that warning could be sent overland to Peru the moment an English ship appeared on the coast.³

For various reasons the significance of Grenville's project has been overlooked. The *Discourse* quoted in note 10 was printed in 1867, but Burghley's endorsement giving Grenville's name was not mentioned. The draft Charter was bound with the State Papers of 1590, but it referred to Richard Grenville . . . Esquire, and he had been knighted in 1577. Recent research

(1) See the reproduction of the western half of *Typus Orbis Terrarum*, facing p. 162.

(2) pp. 6-11.

(3) Corbett, p. 337.

has connected the Charter with the petition of 1574, mentioned in note 7, which refers to lands "beyond the equinoctial." The petition stressed the point that the expedition would merely "pass by" those countries already in occupation of Christian princes, and Miss Taylor has accordingly concluded that the Terra Australis was "the obvious objective of the proposed voyage: the still unoccupied parts of South America—Patagonia and Southern Chile—offered no attractions."⁴

The evidence of Butler and Oxenham makes it clear that the unoccupied parts of South America did present attractions. A colony near the River Plate would provide an approach to the Strait of Magellan, and if, as the maps seemed to indicate, a large part of Chile were available, the whole of the southern portion of the continent might be occupied. Such occupation would appear to control access to the Pacific, for the Cape Horn route had not been discovered. If the North-West Passage were not found, the southern colonies would be necessary in trading with Cathay, for as Williamson has pointed out, the English ships could not carry provisions for long voyages and leave room for cargoes. The idea of searching for the Passage from the west was practical from the seaman's point of view, as it appeared to lie in the zone of the westerly winds; for the same reason the idea of following the shore of the Terra Australis in a westerly direction was not practical, and it seems unlikely that the members of the Navy Board would instruct Drake to take such a course. There appears to be no direct evidence to show that Grenville was really interested in the imaginary continent, and it is more profitable to consider his project in connection with early ideas on colonization.

Rowse, in his admirable biography, has shown that Grenville was of a practical turn of mind, and Raleigh's right-hand man in the settlement of Virginia; he had early and responsible experience of a similar nature in Ireland, in partnership with Sir Warham St. Leger, the cousin of Lady Grenville's father. "The St. Legers [of Annery, in Devon] were a branch of the great Kentish family who had a long-standing connection with Ireland dating from the great Lord-Deputy, Sir Anthony St. Leger, who was the chief architect of Henry VIII's rule there."⁵

It is then to Grenville's experience in Ireland that we trace the ideas which are now revealed by the records of the Inquisition. Oxenham stated that Grenville had "applied to the Queen for a licence to come to the Strait of Magellan and to pass to the South Sea, in order to search for land or some islands where to found settlements, *because, in England, there are many inhabitants and but little land.*" The shipmaster understood "that if the Queen should die, many will come and pass through the Strait and found settlements . . . *England is so full of people that there are many who wish to go to other parts.*" And, in conclusion, Drake had often said to Oxenham "that if the Queen would grant him the licence he would pass through the Strait of Magellan and found settlements over here in some good country."⁶

(4) *More Light on Drake*, p. 136.

(5) Rowse, p. 58.

(6) Nuttall, pp. 9-11. The italics are mine.

APPENDIX II.

EXCERPTS FROM EARLY ACCOUNTS OF DRAKE'S VOYAGE.

(a.) THE NATIVE HOUSES OF CALIFORNIA.

From *The World Encompassed by Sir Francis Drake*, London, 1628.

In recompence of those things which they had receiued of vs, as shirts linnen cloth, &c. they bestowed vpon our generall, and diuerse of our company, diuerse things, as feathers, cawles of networke, the quiuers of their arrowes, made of fawne-skins, and the very skins of beasts that their women wore vpon their bodies. Hauing thus had their fill of this times visiting and beholding of vs, they departed with ioy to their houses, which houses are digged round within the earth, and haue from the vppermost brimmes of the circle, clefts of wood set vp, and ioyned close together at the top, like our spires on the steeple of a Church: which being couered with earth, suffer no water to enter, and are very warme, the doore in the most part of them, performs the office of a chimney, to let out the smoake: its made in bignesse and fashion, like to an ordinary scuttle in a ship, and standing slopewise: their beds are the hard ground, onely with rushes strowed vpon it, and lying round about the house, haue their fire in the midst, which by reason that the house is but low vaulted, round and close, giueth a maruelous reflexion to their bodies to heate the same.

From *The Famous Voyage of Sir Francis Drake*, in Richard Hakluyt's *The Principall Navigations, Voiages and Discoveries of the English Nation*, London, 1589.

. . . The presents which they sent to our Generall, were feathers, and cals of networke.

Their houses are digged round about with earth, and haue from the vttermost brimmes of the circle, cliffs of wood set vpon them, ioyning close together at the toppe like a spire steeple, which by reason of that closenes are very warme.

Their beds is the ground with rushes strowed on it, and lying about the house, haue the fire in the midst. . . .

(b.) DRAKE'S COURSE.

From *The World Encompassed by Sir Francis Drake*, pp. 48-50.

From Guatulco we departed the day following, viz., Aprill 16, setting our course directly into the sea, wherecn we sayled 500 leagues in longitude, to get a winde: and betweene that and June 3, 1400 leagues in all, till we came into 42 deg. of North latitude, where in the night following we found such alteration of heate, into extreame and nipping cold, that our men in generall did grievously complaine thereof, some of them feeling their healths much impaired thereby; neither was it that this chanced in the night alone, but the day following carried with it not onely the markes, but the stings and force of the night going before, to the great admiration of vs all; for besides that the pinching and biting aire was nothing altered, the very roapes of our ship were stiffe, and the raine which fell was an vnnatural congealed and frozen substance, so that we seemed rather to be

in the frozen Zone then any way so neere vnto the sun, or these hotter climates.

Neither did this happen for the time onely, or by some sudden accident, but rather seemes indeed to proceed from some ordinary cause, against the which the heate of the sun preuailes not; for it came to that extremity in sayling but 2 deg. farther to the Northward in our course, that though sea-men lack not good stomaches, yet it seemed a question to many amongst vs, whether their hands should feed their mouthes, or rather keepe themselves within their couerts from the pinching cold that did benumme them. Neither could we impute it to the tendernesse of our bodies, though we came lately from the extremite of heate, by reason whereof we might be more sensible of the present cold: insomuch as the dead and sencelesse creatures were as well affected with it as ourselues: our meate, as soone as it was remooued from the fire, would presently in a manner be frozen vp, and our ropes and tackling in few dayes were growne to that stiffnesse, that what 3 men afore were able with them to performe, now 6 men, with their best strength and vttermost endeaour, were hardly able to accomplish: whereby a sudden and great discouragement seased vpon the mindes of our men, and they were possessed with a great mislike and doubting of any good to be done that way; yet would not our General be discouraged, but as wel by comfortable speeches, of the diuine prouidence, and of God's louing care ouer his children, out of the Scriptures, as also by other good and profitable perswasions, adding thereto his own cheerfull example, he so stirred them vp to put on a good courage, and to quite themselves like men, to indure some short extremity to haue the speedier comfort, and a little trouble to obtaine the greater glory, that euery man was thoroughly armed with willingnesse and resolued to see the uttermost, if it were possible, of what good was to be done that way.

The land in that part of America, bearing farther out into the West then we before imagined, we were neerer on it then wee were aware; and yet the neerer still wee came vnto it, the more extremite of cold did sease vpon vs. The 5 day of Iune, wee were forced by contrary windes to runne in with the shoare, which we then first descried, and to cast anchor in a bad bay, the best roade we could for the present meete with, where wee were not without some danger by reason of the many extreme gusts and flaws that beate vpon vs, which if they ceased and were still at any time, immediately vpon their intermission there followed most uile, thicke, and stinking fogges, against which the sea preuailed nothing, till the gusts of wind againe remoued them, which brought with them such extremity and violence when they came, that there was no dealing or resisting against them.

In this place was no abiding for vs; and to go further North, the extremity of the cold (which had now vtterly discouraged our men) would not permit vs; and the winds directly bent against vs, hauing once gotten vs vnder sayle againe, commanded vs to the Southward whether we would or no.

From the height of 48 deg., in which now we were, to 38, we found the land, by coasting alongst it, to bee but low and reasonable plaine; euery hill (whereof we saw many, but non verie high), though it were in Iune, and

the sunne in his neereſt approach vnto them, being couered with ſnow. In 38 deg. 30 min. we fell with a conuenient and fit harborough, and June 17 came to anchor therein, where we continued till the 23 day of July following. During all which time, notwithstanding it was in the height of ſummer, and ſo neere the ſunne, yet were wee continually viſited with like nipping colds as we had felt before; inſomuch that if violent exerciſes of our bodies, and buſie employment about our neceſſarie labours, had not ſometimes compeld us to the contrary, we could very well haue been contented to haue kept about us ſtill our winter clothes; yea (had our neceſſities ſuffered vs) to haue kept our beds; neither could we at any time, in whole fourteene dayes together, find the aire ſo cleare as to be able to take the height of ſunne or ſtarre.

From The Famous Voyage of Sir Francis Drake.

When our Generall had done what hee would with this CACAFUEGO, he caſt her off, and wee went on our courſe ſtill towards the Weſt, and not long after met with a ſhip laden with linnen cloth and fine CHINA diſhes of white earth, and great ſtore of CHINA ſilks, of all which things wee tooke as we liſted.

China
ſilks.

The owner himſelfe of this ſhippe was in her, who was a Spaniſh Gentleman, from whome our Generall tooke a Fawlcon of golde, with a great emraude in the breaſt thereof, and the Pilot of the ſhippe he tooke alſo with him, and ſo caſt the ſhippe off.

This pilot brought vs to the hauen of GUATULCA, the towne whereof as he told vs, had but 17. Spaniards in it. Aſſoone as we were entred this hauen wee landed, and went preſently to the towne, and to the Towne houſe, where we found a Judge ſitting in iudgement, he being aſſociate with three other officers, vpon three Negroes that had conſpired the burning of the Towne: both which Judges, and priſoners we tooke, and brought them a ſhipboord, and cauſed the chiefe Judge to write his letter to the Towne, to command all the Towneſmen to auoid, that we might ſafely water there. Which being done, and they departed, we ransaked the Towne, and in one houſe we found a pot of the quantitie of a buſhell, full of royals of plate, which we brought to our ſhippe.

Guatulca.

And here one THOMAS MOONE one of our companie, tooke a Spaniſh Gentleman as he was flying out of the towne, and ſearching him, he found a chaine of golde about him, and other iewels, which he tooke, and ſo let him goe.

At this place our Generall among other Spaniards, ſet a ſhoare his Portingall Pilot, which he tooke at the Iſlands of Cape VERDE, out of a ſhippe of S. MARIE porte of Portingal, and hauing ſet them a ſhoare, we departed hence, and ſailed to the Iſland of "CANON, where our General landed, and brought to ſhoare his owne ſhip, and diſcharged her, mended, and graued her, and furniſhed our ſhippe with water and wood ſufficiently.

The
Portingall
Pilot ſet on
land. "The
Iſland of
Cockles.

And whiles we were here, we eſpied a ſhippe, and ſet ſaile after her, and tooke her, and founde in her two Pilots, and a Spaniſh Gouvernour, going for the Iſlands of the PHILIPPINAS: we ſearched the ſhippe, and tooke ſome of her marchandizes, and ſo let her goe. Our Generall at this place, and time, thinking himſelfe both in reſpect of his priuate iniuries receiued

A ſhip with
a gouvernour
for the
Iſlands of
Philippinas.

A purpose in
Sir Francis
to returne by
the Northwest
passage.

from the Spaniards, as also of their contempts and indignities offered to our country and Prince in generall, sufficiently satisfied, and reuenged: and supposing that her Maiestie at his returne would rest contented with this seruice, purposed to continue no longer vpon the Spanish coasts, but began to consider and to consult of the best way for his Countrey.

He thought it not good to returne by the Streights, for two speciall causes: the one, least the Spaniards should there waite, and attend for him in great number and strength, whose hands he being left but one shippe, could not possibly escape. The other cause was the dangerous situation of the mouth of the Streights in the south side, where continuall stormes raining and blustering, as he found by experience, besides the shoales, and sands vpon the coast, he thought it not a good course to aduenture that way: he resolved therefore to auoide these hazards, to goe forward to the Islands of the MOLUCCAES, and therehence to saile the course of the Portingals by the Cape of BONA SPERANZA.

Upon this resolution, he began to thinke of his best way to the MOLUCCAES, and finding himselfe where he nowe was becalmed, he sawe, that of necessitie he must be forced to take a Spanish course, namely to saile somewhat Northerly to get a winde. We therefore set saile, and sailed in longitude 600. leagues at the least for a good winde, and thus much we sailed from the 16. of April, till the 3. of June.

June.
Sir Francis
Drake sailed
on the backe
side of
America to
42. deg. of
Northerly
latitude.
38. degrees.

The 5. day of June, being in 42 degrees towards the pole Arctike, we found the aire so colde, that our men being greeuously pinched with the same, complained of the extremitie thereof, and the further we went, the more colde increased vpon vs. Whereupon we thought it best for that time to seeke the land, and did so, finding it not mountanous, but lowe plaine land, & clad and couered ouer with snowe, so that we drewe backe againe without landing, till we came within 38. degrees towards the line. In which heighth it pleased God to send vs into a faire and good Baye, with a good winde to enter the same.

From the *First Declaration of John Drake*, as printed in *New Light on Drake*, by Zelia Nuttall, London, 1914, p. 31.

They sailed out at sea always to the north-west and north-north-west the whole of April and May until the middle of June, from Guatulco, which lies in 15 degrees north, until they reached 48 degrees north. On their voyage they met with great storms. All the sky was dark and full of mist. On the voyage they saw five or six islands in 46 and 48 degrees. Captain Francis gave the land that is situated in 48 degrees the name of New England. They were there a month and a half, taking in water and wood and repairing their ship.

From the *Second Declaration of John Drake*, as printed in *New Light on Drake*, p. 50.

Then they left and sailed, always on a wind, in a north-west and north-north-westerly direction, for a thousand leagues until they reached forty-four degrees when the wind changed and he went to the Californias where he discovered land in forty-eight deg. There he landed and built huts and remained for a month and a half, caulking his vessel. The victuals they found were mussels and sea-lions.

